



**F R I E D R I C H**

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# **Installation & Operation Manual**

## **ZoneAire®**

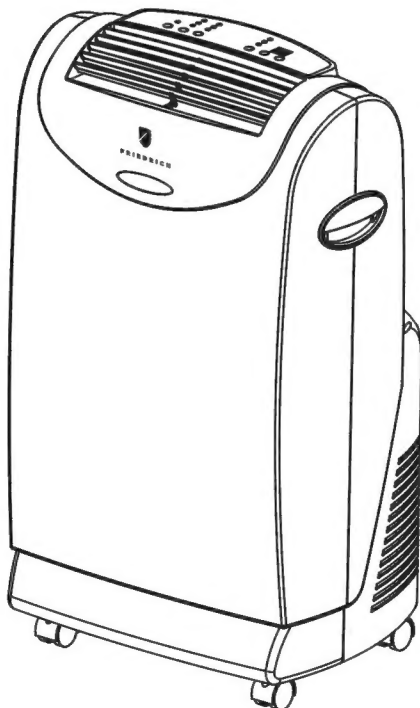
### **Portable Air Conditioner**

Models P09B

P12B

### **Portable Air Conditioner with Heat**

Model PH14B *Heat Pump*





# Foreword

Thank you for purchasing the new Friedrich ZoneAire® Portable Air Conditioner. We are confident that you will find this unit a quiet and efficient example of Friedrich reliability.

This Installation and Operation Manual has been designed to insure maximum satisfaction in the performance of your unit. For years of trouble-free service, please follow these installation instructions closely.

## WARNING: Before Operating Your Unit


**WARNING**


**Electrical Shock Hazard**

Make sure your electrical receptacle has the same configuration as your air conditioner's plug. If different, consult a Licensed Electrician.

Do not use plug adapters.  
Do not use an extension cord.  
Do not remove ground prong.

Always plug into a grounded 3 prong outlet.  
Failure to follow these instructions can result in death, fire, or electrical shock.

**WARNING**


**Refrigeration system under high pressure**


Do not puncture, heat, expose to flame or incinerate.  
Only certified refrigeration technicians should service this equipment.  
R410A systems operate at higher pressures than R22 equipment. Appropriate safe service and handling practices must be used.  
Only use gauge sets designed for use with R410A. Do not use standard R22 gauge sets.

**Your safety and the safety of others are very important.**


We have provided many important safety messages in this manual and on your appliance. Always read and obey all safety messages.

This is a safety Alert symbol.  
This symbol alerts you to potential hazards that can kill or hurt you and others.  
All safety messages will follow the safety alert symbol with the word "WARNING" or "CAUTION". These words mean:

**WARNING** Indicates a hazard which, if not avoided, can result in severe personal injury or death and damage to product or other property.

**CAUTION** Indicates a hazard which, if not avoided, can result in personal injury and damage to product or other property.

All safety messages will tell you what the potential hazard is, tell you how to reduce the chance of injury, and tell you what will happen if the instructions are not followed.

**NOTICE** Indicates property damage can occur if instructions are not followed.

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## Introduction

### Portable Air Conditioner

This Portable Air Conditioner is designed to provide a quick and easy cooling solution for areas that either do not have air conditioning or areas that the current system cannot maintain at a comfortable level.

This unit is also great as a back-up system in case the primary cooling system should fail.

Other means of air conditioning should be employed when the indoor temperature is below 63°F (17°C) or above 95°F (35°C) for cooling and below 14°F (-10°C) or above 77°F (25°C) for heating.


## Attention

Before you use your PORTABLE AIR CONDITIONER, please read this instruction manual carefully so that you get the best performance from the unit.

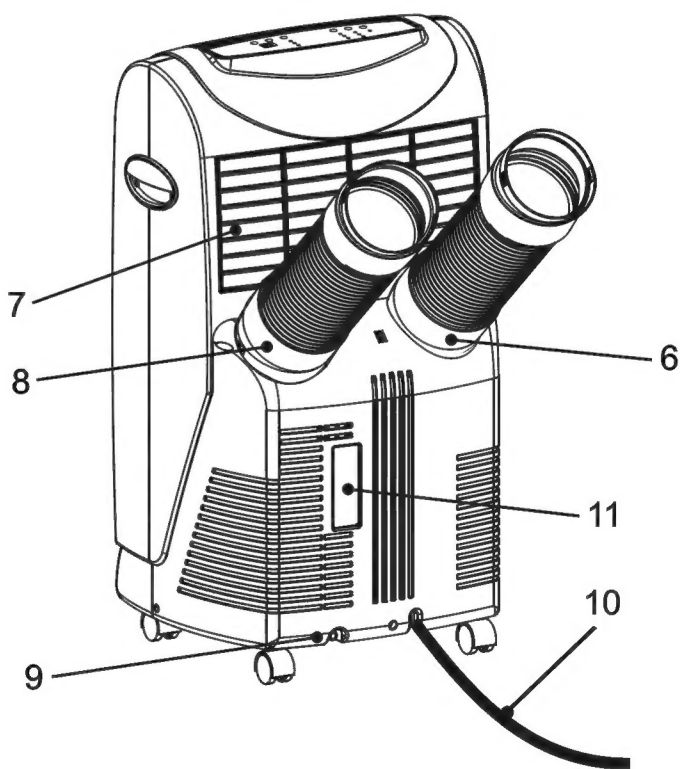
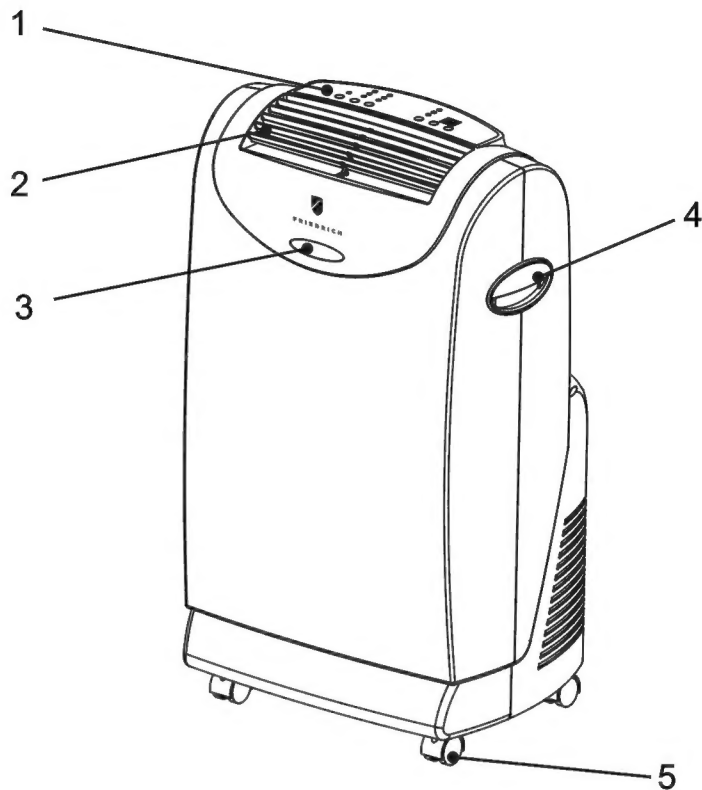
This instruction manual is used for guidance and does not form part of a contract. We reserve the right to make technical changes without prior notice.

### Make sure the wiring is adequate for your unit.

If you have fuses, they should be of the time delay type. Before you install or relocate this unit, be sure that the amperage rating of the circuit breaker or time delay fuse does not exceed the amp rating listed in Table 1.

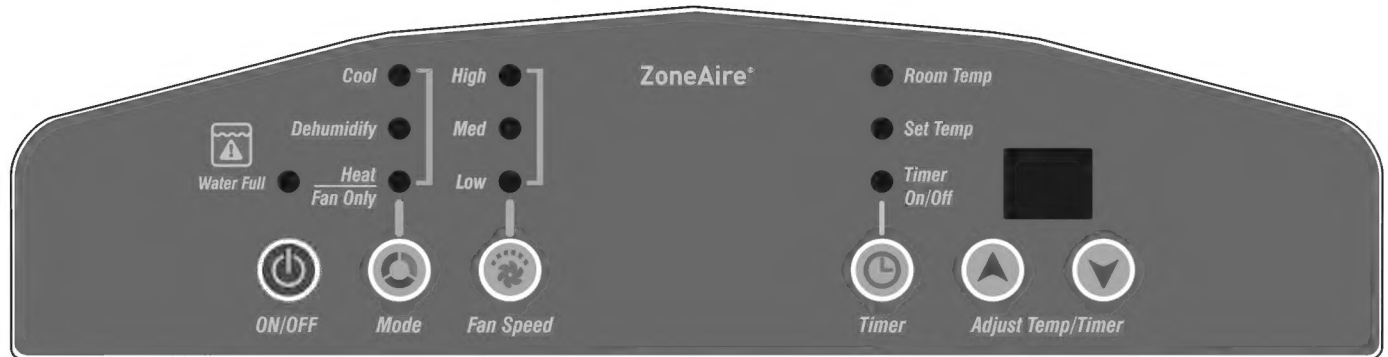
Table 1.				
MODEL	CIRCUIT RATING OR TIME DELAY FUSE		REQUIRED WALL RECEPTACLE	
	AMP	VOLT	NEMA NO.	
P09B, P12B, PH14B	15	125	5-15P	

# Unit Identification and Function



1. Control panel
2. Air outlet
3. Signal receptor
4. Handle
5. Caster
6. Air outlet hose
7. Air filter
8. Air intake hose
9. 1/2" water drain outlet
10. Power supply cord
11. Built-in drain pump outlet (PH14B model only)

# Control Panel Operation



## LCDI power cord information

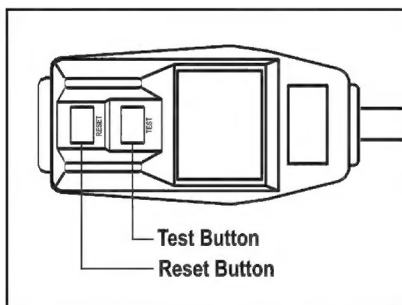
All Friedrich portable air conditioners are shipped from the factory with a Leakage Current Detection Interrupter (LCDI) equipped power cord. The LCDI device meets the UL and NEC requirements for cord connected air conditioners effective August 2004.

To test your power supply cord:

1. Plug power supply cord into a grounded 3 prong outlet.
2. Press RESET (See drawing below).
3. Press TEST (listen for click; Reset button trips and pops out).
4. Press and release RESET (listen for click; Reset button latches and remains on). The power supply cord is ready for operation.

NOTE: LCDI device is not intended to be used as a switch. Once plugged in the unit will operate normally without the need to reset the LCDI device.

If the device fails to trip when tested or if the power supply cord is damaged it must be replaced with a new supply cord from the manufacturer. We recommend you contact our Technical Assistance Line at (800) 541-6645 ext. 260 To expedite service, please have your model and serial number available.



**WARNING: NEVER CUT OR REMOVE THE GROUNDING PRONG FROM PLUG. NEVER USE EXTENSION CORDS TO OPERATE AN AIR CONDITIONER.**

## Mode control - Portable Air Conditioner

The mode control has three settings - Cool, Dehumidify and Fan. The settings are adjusted with the Mode Control button. A light will indicate which setting is currently being used.

## Mode control - Portable Air Conditioner with Heat Pump

The mode control has four settings - Cool, Dehumidify, Heat and Fan. The settings are adjusted with the Mode Control button. A light will indicate which setting is currently being used.

## Cooling operation

1. Press MODE button to choose the cooling mode, LED will shine blue.
2. Desired room temperature may be set by pressing the TEMP ▲ or TEMP ▼ button.
3. Press FAN SPEED button to choose between high, medium and low speeds.

### NOTE:

In order to improve the cooling efficiency:

- a) If your room is directly exposed to the sun, draw the curtains.
- b) Do not place near other heat source.

## Dehumidifying Operation

1. Keep the windows and the doors closed to aid in effectively dehumidifying the room.
2. Press MODE button to choose the dehumidifying mode, LED will shine yellow, the fan speed cannot be adjusted.

When used as dehumidifier only it is not necessary to install the exhaust hose.

NOTE: This allows for better humidity removal in the room than a conventional air conditioning system provides. The unit's cooling and enhanced dehumidification process operates simultaneously and is monitored by the unit's precision software processor. It is recommended for use on those cooler more humid days in early spring or fall.

## Heating operation

1. Press MODE button to choose the heating mode, LED will shine red.  
During the heating operation, always place the air exhaust hose through an open window.
2. Desired room temperature may be set by pressing the TEMP ▲ or TEMP ▼ button.
3. Is initiated only when the room temperature is below 77°F, but above 32°F.
4. Press FAN SPEED button to choose between high, medium or low speeds.

## Fan Operation (Cooling & Heating modes)

1. Press MODE button to choose the fan mode, LED will shine orange.
2. Air will be circulated throughout the room without cooling or heating.
3. Press FAN SPEED button to choose between high, medium, and low speeds.

## Time Set Function

To set the time to start the machine, with the unit off (but power supplied), press TIMER button, the LED window will show "⌚-ON", continually press the TIMER button, set the preferred start time. The setting range is 1-24 hours.

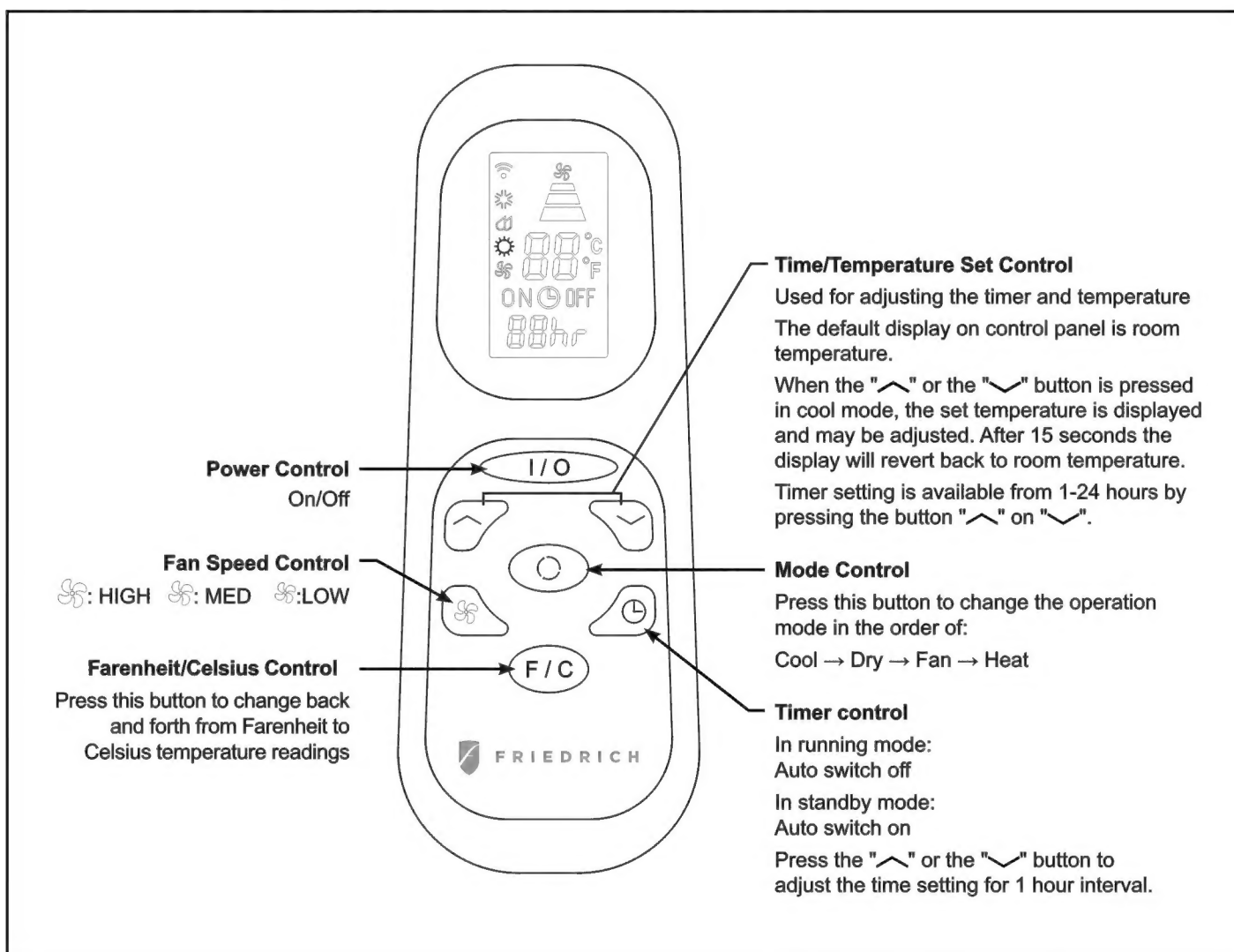
To set the time to stop the machine, with the unit running, press TIMER button, the LED window will show "⌚-OFF", continually press the TIMER button, set the preferred time to stop the machine. The setting range is 1-24 hours

NOTE: During timer mode if the TIMER button is pressed again it will cancel the timer operation.

## Warning Light

Condensate water may accumulate in the unit. If the internal tank becomes full, the Warning Light will come on and the unit will not operate until the internal tank has been drained.

## Remote Control Identification and Function



# Window installation

## Window adapter kit

An installation parts kit is packed with your unit in a separate carton. Before you discard the packaging that your unit came in, please locate the carton that contains these parts and ensure that all parts are present.

**Window panel** Attaches to window opening to allow air exchange for system air transfer.

**Window panel extensions** Extends window panel to fit windows of various dimensions.

**Tube adapters** Connect Air exchange tubes to window panel.

**Screws** 12 screws are included for assembling the window adapter kit. Some screws may be partially assembled onto window panel.

**Air exchange tubes** Exchanges air between the unit and outdoors.

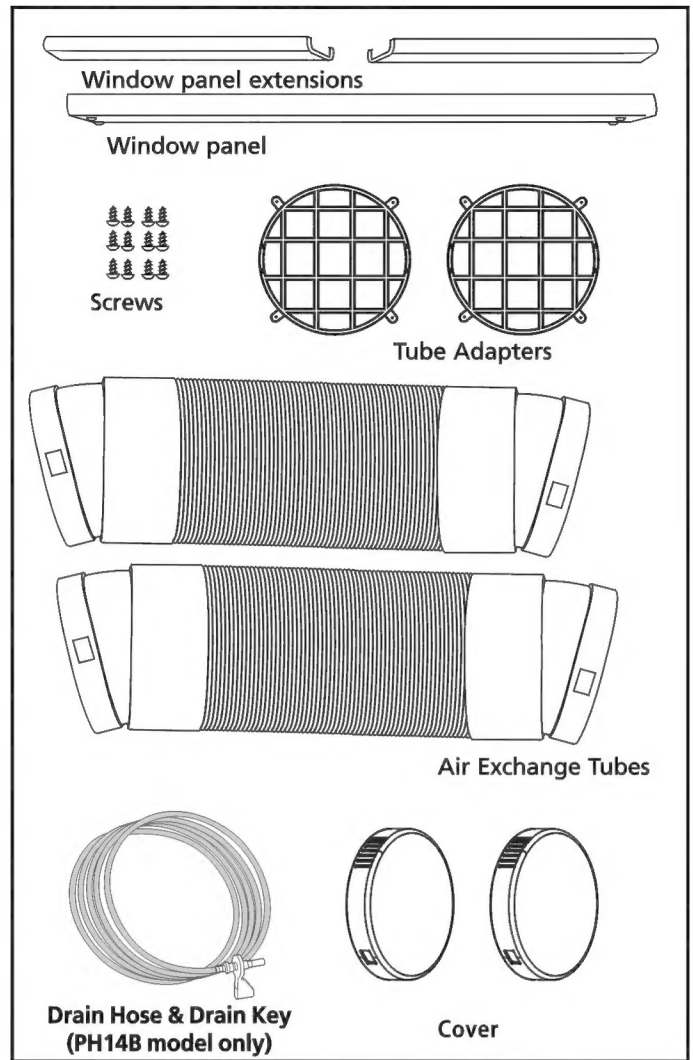
**Tube Covers** Covers the intake air outlet during heating mode.

**Drain Hose** Empty condensation from unit continuously

**Drain Key** Quick connector for Built-In Drain

Minimum window extension	26"
Maximum window extension	46"
Minimum hose extension	20"
Maximum hose extension	60"

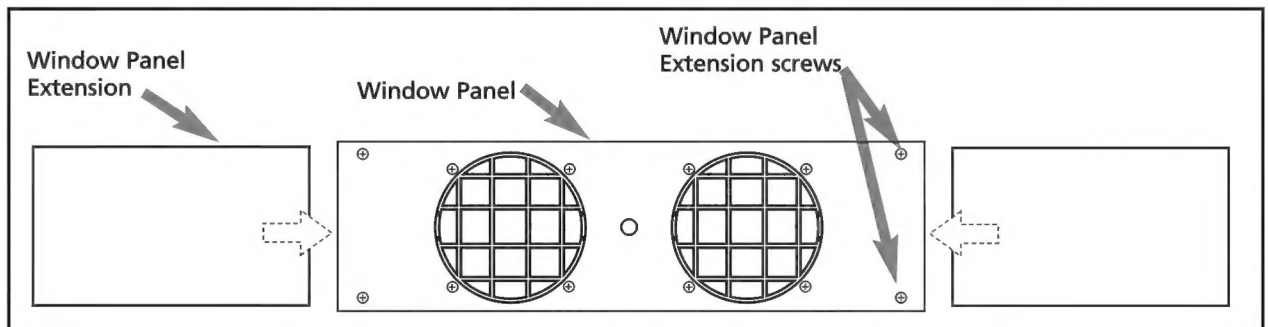
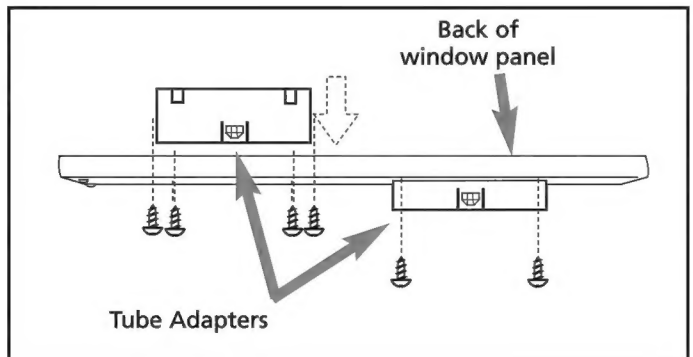
## Cover, Drain Hose and Drain Plug



## Instructions for assembling the window adapter kit

1. Insert tube adapters through the back of the window panel.
2. Secure each tube adapter with four screws through the front of the window panel.
3. Insert window panel extensions into window panel. Lightly tighten the screws in the window panel to hold the extensions in place.

Note: Some installations may require cutting down the window panel extensions for preferred fit.



## Installing the window adapter kit

**Note:** The window adapter kit must be installed and connected for the air conditioner to work properly in Cool mode. The window adapter kit is not required when using the unit in Dehumidify or Fan modes.

Your window adapter kit has been designed to fit most standard vertical and horizontal window applications. However, it may be necessary for you to modify some aspects of the installation procedures for certain types of windows.

1. Open window.
2. Place window panel with extensions into window frame and adjust to width of window or cut extensions to fit, if required.  
Window adapter kit may be installed vertically as well as horizontally. This installation may also be used for casement style windows.
3. Tighten the four screws on the window panel to secure the window panel extensions.
4. Close window.
5. The window adapter kit should now fit securely within the window frame and you can now attach the air exchange tubes. If you are having trouble attaching the air exchange tubes, you may attach the tubes prior to installing the window adapter kit.

## Attaching the air exchange tubes to the air conditioner

**Note:** While it is possible to operate the unit in COOL MODE with only the exhaust hose connected, for optimum cooling performance it is recommended to operate the unit with both the intake and exhaust hoses connected. This will provide the best cooling performance without drawing outside air into the space.

In HEAT MODE the unit will operate down to an outdoor temperature of 14°F. It is recommended that only one hose be used for optimal performance. The intake opening on the window kit should be covered with the cover that is supplied with the unit. There may be a slight negative pressure created in the space while the unit is operated in the single-hose configuration.

### Cool Mode

1. Attach the ends of both tubes to the window adapter kit.
2. Attach the other end of both tubes to the air conditioner.

### Heat Mode

1. Attach one tube to the window adapter kit.
2. Attach the other end of tube to the exhaust air outlet of air conditioner.
3. Place the included cover on the intake air outlet of air conditioner.

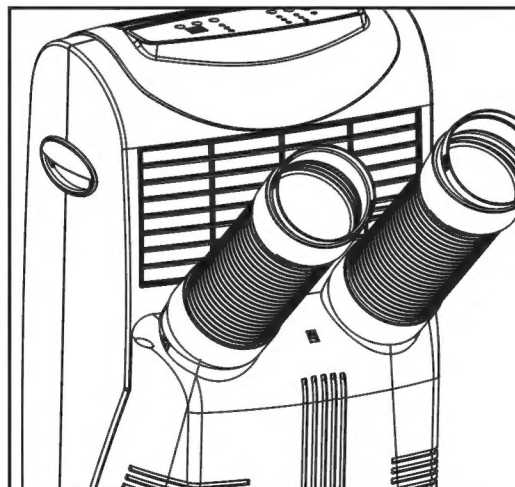
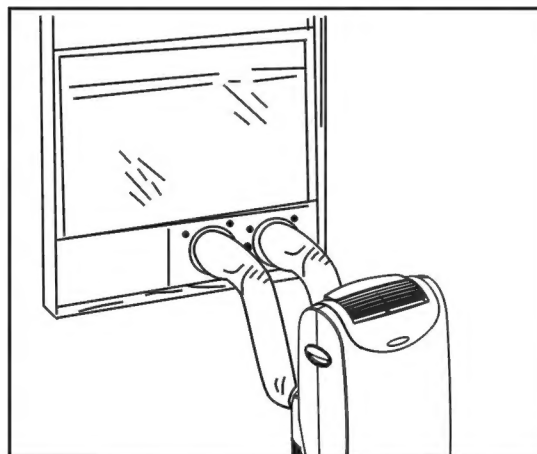
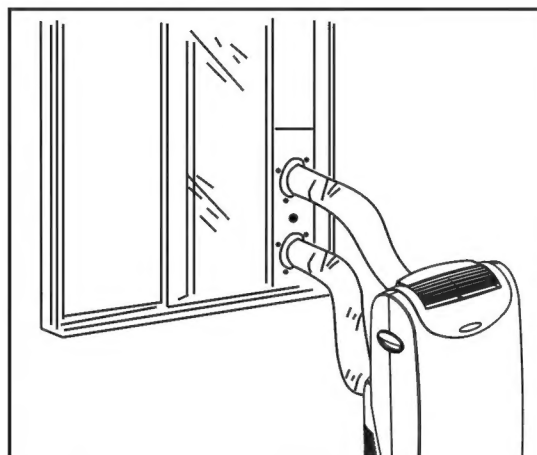
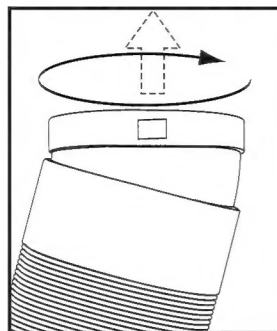
To attach air exchange tubes: push tube onto tube adapter and twist until the tab is in place in the hole on the tube.

To remove air exchange tubes: twist the end until the tab is clear of the hole in the tube and pulls off.

**Do not attach the tubes if using the unit in dehumidify mode.**

**Maintain a clear distance (from walls, furniture, etc.) of at least 10 inches around the unit to allow proper air circulation and prevent damage to the unit.**

**Important: Do not over-stretch the exhaust tube or make any unnecessary bends in it.**



Intake Hose

Exhaust Hose



# Condensation Handling

## Cooling Mode

Your ZoneAire® Portable Air Conditioner is designed to evaporate the condensation removed from the interior space through the exhaust hose. Under certain conditions it is possible that the unit will not evaporate 100% of the removed moisture.

The unit is designed with a built-in reservoir to accumulate excess condensate and help dispose of it.

## Heating Mode

In heating mode it is possible to still collect condensate in the unit. Because the evaporation process does not work as efficiently in colder temperatures it may be necessary to drain the water from the unit as described (ALL MODELS) in the **Draining Water** or **Permanent Drainage** section or using the supplied Built-In Drain Pump and hose.

## Internal Water Level

1. Under any mode if the water level is in the "low" area the unit will function normally.
2. If the water level is in the "normal" area the unit will continue to function normally while internally evaporating the condensate.
3. If the unit cannot evaporate all of the condensate internally, the tank may become full. If the tank becomes full, the unit will turn off, and the Water Full light will illuminate.

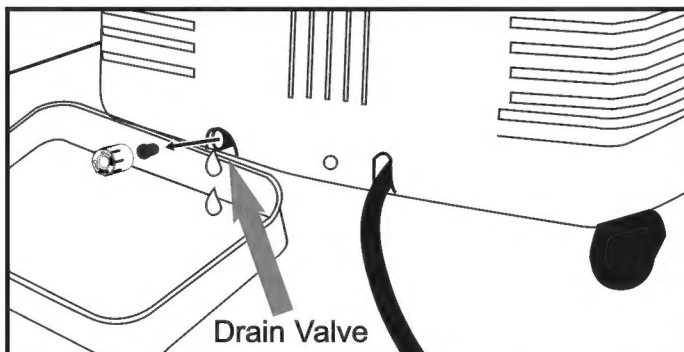
## Draining Water

The water can be drained from the unit by removing the drain plug and letting the water drain by gravity.

1. When the WATER FULL lamp is on unplug the unit and move the unit to a suitable location for draining the condensation.
2. Using the gravity drain method, ensure that the drain plug is located above a suitable area for draining the condensate and remove the plug. Re-install the plug once all water has drained.
3. Return the unit to the original location and restore power and duct connections.
4. The WATER FULL indicator should be off and the unit will return to normal operating mode.

## Permanent Drainage

For permanent and continuous drainage, a 1/2" hose and clamp may be attached to the unit and led down a drain. (1/2" hose and clamp not included)



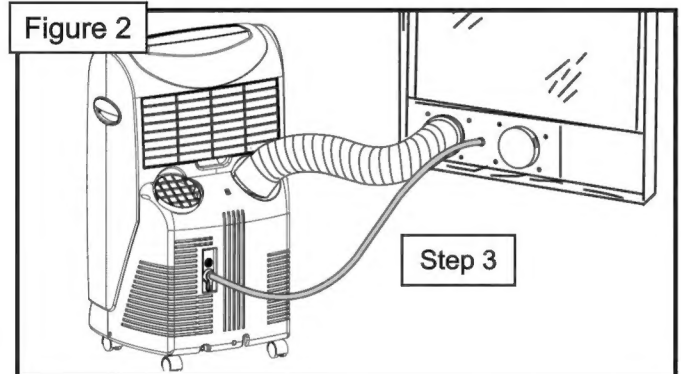
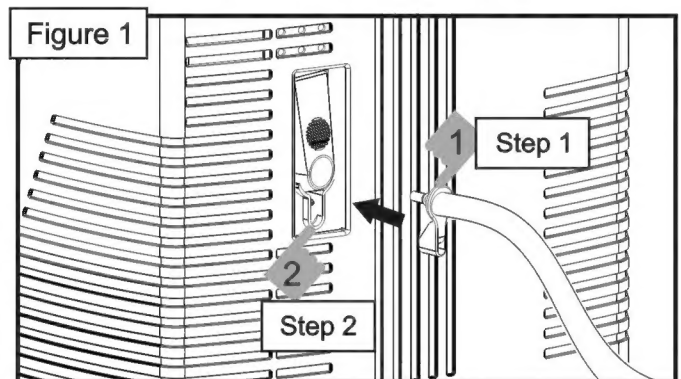
## Built-in Drain Pump (PH14B model only)

The condensate produced in heating mode can also be drained through the supplied drain hose utilizing the internal built-in drain pump. Follow the steps below for proper operation of the pump.

NOTE: The built-in drain pump operation is only activated in heating mode.

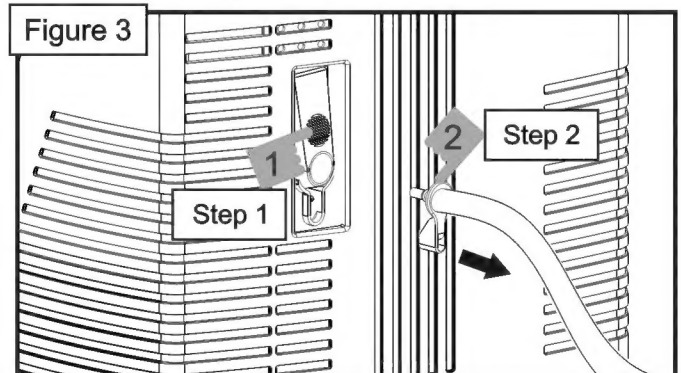
Installation: (See Figures 1&2)

- STEP 1. Connect the supplied drain hose to the drain key.
- STEP 2. Connect the drain key and hose to the drain outlet located on the rear panel.
- STEP 3. Lead the other end of drain hose to a suitable location for drainage, like a drain or sink or the outlet located on the window panel kit.
- Use caution when using the drainage outlet on window panel kit to avoid creating a slipping hazard.



Dismantle: (See Figure 3)

- STEP 1. Press the release button on the unit rear panel.
- STEP 2. Pull out the drain key and hose.
- STEP 3. Store the drain hose for next time usage. (No image for this step)





# Maintenance /Service



**WARNING**

## Electrical Shock Hazard

Disconnect all power before servicing or cleaning.

Failure to follow these instructions can result in death, electrical shock or fire.

## Cleaning the air filter

If the air filter is clogged with dust, the air flow will be reduced. Clean the filter once every two weeks.

### Open and clean the air filter:

1. Pull the filter out as shown in the drawing.
2. Take out the air filter from the filter cover.
3. Wash the air filter by immersing it gently into warm (about 40°C or 104°F) water with a mild detergent or vacuum the filter clean.
4. Rinse the filter and dry it thoroughly in a shaded place.
5. Install the air filter back to its original place.

## Cleaning the air conditioner

Clean the surface of the unit with a damp cloth, then dry with a clean towel or cloth.

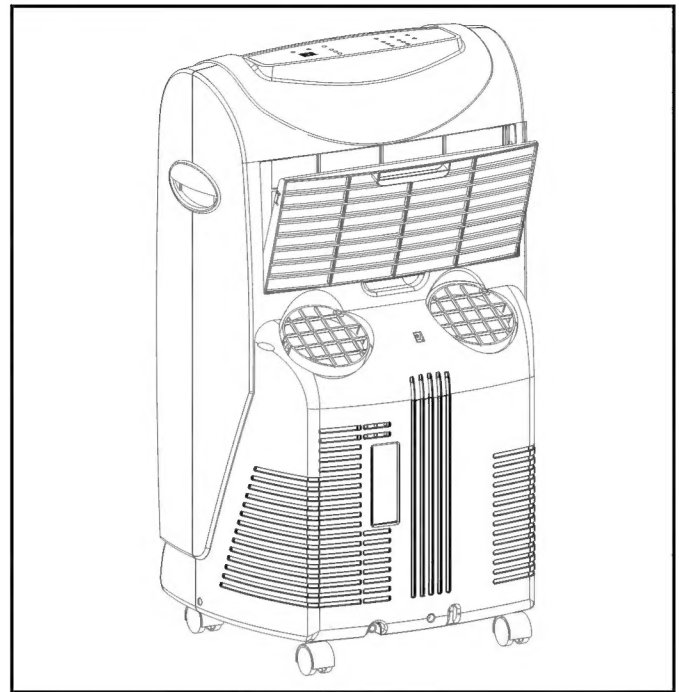


**CAUTION**

Do not use chemical solvent (like benzene or alcohol) to clean the surface of the unit. If you do so, the surface may be scratched, damaged or even cause the case to become damaged.

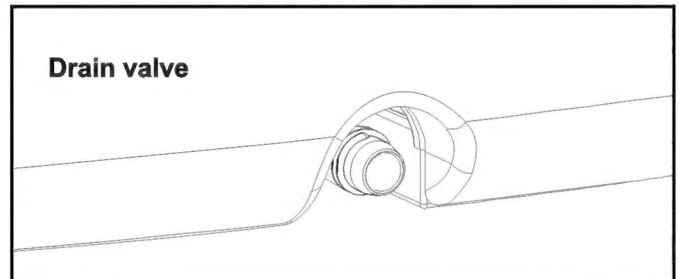
## Prior to operating seasons

1. Check to ensure that the air inlets and outlets of the unit are not blocked.
2. Make sure that air filter is properly in place before operating the machine. If the machine is operated with air filter removed, dust and foreign objects will result in faulty performance of the air conditioner.



## Preparation for storage

1. Turn off the air conditioner, disconnect the power.
2. Perform proper maintenance to the air filter and other parts.
3. Pull out the drain plug to drain out all of the water from the base. Operating the unit in fan only mode for 12 hours will help ensure there is no moisture within the unit.



4. Cover the unit to prevent dust or debris from entering the unit.

## Safety Precautions



**CAUTION**

- Install in an accessible location.
- Only operate the unit in an upright position.
- Do not place in direct sunlight to avoid discoloration of the plastic.
- Do not use the unit on or in water to avoid electrical shock.
- Do not use near gas appliances, flammable liquids, or fires.

## Power Sources



**WARNING**

- Make sure your electrical receptacle has the same configuration as your air conditioner's plug. If different, consult a Licensed Electrician.
- Do not use plug adapters.  
Do not use an extension cord.  
Do not remove ground prong.
- Always plug into a grounded 3 prong outlet. Failure to follow these instructions can result in death, fire, or electrical shock.

## Other Warnings

- Do always keep the unit 3 feet away from TV sets or radios to avoid the risk of electromagnetic interference.
- Do always keep the air outlets free from obstructions.

# Troubleshooting

Before seeking repair or service, please check the following first:

COMPLAINT	CAUSE	SOLUTION
Unit does not operate.	The unit is turned off.	Turn the unit on.
	The LCDI power cord is unplugged.	Plug into a properly grounded 3 prong receptacle.
	The LCDI power cord has tripped (Reset button has popped out).	Press and release RESET (listen for click; Reset button latches and remains in) to resume operation.
	The circuit breaker has tripped or the supply circuit fuse has blown.	Reset the circuit breaker, or replace the fuse as applicable. If the problem continues, contact a licensed electrician.
	There has been a local power failure.	The unit will resume normal operation once power has been restored.
Unit Does Not Cool/Heat Room Sufficiently	The intake/exhaust hoses are blocked.	Ensure that the return and/or discharge air paths are not blocked by curtains, blinds, furniture, etc.
	The filter is dirty or obstructed.	Clean the filter, (See Maintenance/Service), or remove obstruction
	There is excessive heat or moisture (cooking, showers, etc.) in the room. The exhaust hose is bent.	Be sure to use exhaust vents while cooking or bathing and, if possible, try not to use heat producing appliances during the hottest part of the day.



**WARNING**

In case of major malfunction, disconnect power immediately and call for service.



**F R I E D R I C H**

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**Friedrich Air Conditioning Company**  
10001 Reunion Place, Suite 500  
San Antonio, TX 78216

[www.friedrich.com](http://www.friedrich.com)

## **PORTABLE AIR CONDITIONERS LIMITED WARRANTY**

### **FIRST YEAR**

**ANY PART:** If any part supplied by FRIEDRICH fails because of a defect in workmanship or material within twelve months from date of original purchase, FRIEDRICH will repair the product at no charge, provided the product is transported to a Friedrich Authorized Service Center for repair. ALL transportation charges are the sole responsibility of the owner. This remedy is expressly agreed to be the exclusive remedy within twelve months from the date of the original purchase.

### **SECOND THROUGH FIFTH YEAR**

**SEALED REFRIGERANT SYSTEM:** If the Sealed Refrigeration System (defined for this purpose as the compressor, condenser coil, evaporator coil, reversing valve, check valve, capillary, filter drier, and all interconnecting tubing) supplied by FRIEDRICH in your Room Air Conditioner fails because of a defect in workmanship or material within sixty months from date of purchase, FRIEDRICH will pay a labor allowance and parts necessary to repair the Sealed Refrigeration System; **PROVIDED** FRIEDRICH will not pay the cost of diagnosis of the problem, removal, freight charges, and transportation of the air conditioner to and from the Service Agency, and the reinstallation charges associated with repair of the Sealed Refrigeration System. All such cost will be the sole responsibility of the owner. This remedy is expressly agreed to be the exclusive remedy within sixty months from the date of the original purchase.

**APPLICABILITY AND LIMITATIONS:** This warranty is applicable only to units retained within the Fifty States of the U.S.A., District of Columbia, and Canada. This warranty is not applicable to:

1. Air filters or fuses.
2. Products on which the model and serial numbers have been removed.
3. Products which have defects or damage which results from improper installation, wiring, electrical current characteristics, or maintenance; or caused by accident, misuse or abuse, fire, flood, alterations and/or misapplication of the product and/or units installed in a corrosive atmosphere, default or delay in performance caused by war, government restrictions or restraints, strikes, material shortages beyond the control of FRIEDRICH, or acts of God.

**OBTAINING WARRANTY PERFORMANCE:** Service will be provided by the **FRIEDRICH Authorized Dealer or Service Organization** in your area. They are listed in the Yellow Pages. If assistance is required in obtaining warranty performance, write to: Room Air Conditioner Service Manager, Friedrich Air Conditioning Co., 10001 Reunion Place, Suite 500, San Antonio, TX 78216.

**LIMITATIONS:** **THIS WARRANTY IS GIVEN IN LIEU OF ALL OTHER WARRANTIES.** Anything in the warranty notwithstanding, **ANY IMPLIED WARRANTIES OF FITNESS FOR PARTICULAR PURPOSE AND/OR MERCHANTABILITY SHALL BE LIMITED TO THE DURATION OF THIS EXPRESS WARRANTY.** **MANUFACTURER EXPRESSLY DISCLAIMS AND EXCLUDES ANY LIABILITY FOR CONSEQUENTIAL OR INCIDENTAL DAMAGE FOR BREACH OF ANY EXPRESSED OR IMPLIED WARRANTY.**

**NOTE:** Some states do not allow limitations on how long an implied warranty lasts, or do not allow the limitation or exclusion of consequential or incidental damages, so the foregoing exclusions and limitations may not apply to you.

**OTHER:** This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

**PROOF OF PURCHASE:** Owner must provide proof of purchase in order to receive any warranty related services.

All service calls for explaining the operation of this product will be the sole responsibility of the consumer.

All warranty service must be provided by an **Authorized FRIEDRICH Service Agency**, unless authorized by FRIEDRICH prior to repairs being made.



**F R I E D R I C H**

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